

Amendments to the Claims

1-60. (Canceled)

61. (Currently Amended) The method of fabricating a semiconductor device in accordance with claim [[60]] 70, further comprising a step of forming an insulating film of 1000 to 6000 Å in thickness on said substrate and forming said amorphous silicon film on said insulating film.

62. (Currently Amended) The method of fabricating a semiconductor device in accordance with claim [[60]] 70, wherein a xenon arc lamp is employed in said light source.

63. (Currently Amended) The method of fabricating a semiconductor device in accordance with claim [[60]] 70, wherein said rapidly heat treating step comprises a step of preparing said light source by arranging a pair of lamps vertically opposed to each other, and carrying said substrate so as to pass between said pair of lamps.

64. (Currently Amended) The method of fabricating a semiconductor device in accordance with claim [[60]] 70, wherein said rapid thermal annealing is performed a plurality of times.

65. (Currently Amended) The method of fabricating a semiconductor device in accordance with claim [[60]] 70, wherein the heating temperature is increased stepwise from an initial time to a final time.

66-69. (Canceled)

70. (Currently Amended) ~~The method of fabricating a semiconductor device in accordance with claim 60~~ A method of fabricating a semiconductor device, comprising the steps of:

forming an amorphous silicon film on a substrate;
heat treating said amorphous silicon film by laser annealing, therein forming a polycrystalline silicon film;
forming an impurity region in said polycrystalline silicon film; and
rapidly heat treating said impurity region by rapid thermal annealing using a light source emitting sheet-type annealing light, therein activating said impurity region, wherein said light source is composed of a lamp and a reflecting mirror covering the lamp for emitting sheet-type annealing light.

71. (Currently Amended) ~~The method of fabricating a semiconductor device in accordance with claim 60~~ A method of fabricating a semiconductor device, comprising the steps of:

forming an amorphous silicon film on a substrate;

heat treating said amorphous silicon film by laser annealing, therein forming a polycrystalline silicon film;
forming an impurity region in said polycrystalline silicon film; and
rapidly heat treating said impurity region by rapid thermal annealing using a light source emitting sheet-type annealing light, therein activating said impurity region,
wherein said light source is composed of a lamp and a reflecting mirror for reflecting the light from the lamp so as to emit sheet-type annealing light.

72. (Currently Amended) The method of fabricating a semiconductor device in accordance with claim [[60]] 70, wherein said impurity region is rapidly heat treated for three seconds or less.

73. (Currently Amended) ~~The method of fabricating a semiconductor device in accordance with claim 66~~ A method of fabricating a semiconductor device, comprising the steps of:

forming an amorphous silicon film on a substrate;
heat treating said amorphous silicon film by laser annealing performed by applying a laser beam in the form of a sheet, therein forming a polycrystalline silicon film;
forming an impurity region in said polycrystalline silicon film; and
rapidly heat treating said impurity region by rapid thermal annealing using a light source emitting sheet-type annealing light, therein activating said impurity region,

wherein said light source is composed of a lamp and a reflecting mirror, covering the lamp for emitting sheet-type annealing light.

74. (Currently Amended) ~~The method of fabricating a semiconductor device in accordance with claim 66~~ A method of fabricating a semiconductor device, comprising the steps of:

forming an amorphous silicon film on a substrate;

heat treating said amorphous silicon film by laser annealing performed by applying a laser beam in the form of a sheet, therein forming a polycrystalline silicon film;

forming an impurity region in said polycrystalline silicon film; and

rapidly heat treating said impurity region by rapid thermal annealing using a light source emitting sheet-type annealing light, therein activating said impurity region, wherein said light source is composed of a lamp and a reflecting mirror for reflecting the light from the lamp so as to emit sheet-type annealing light.

75. (Canceled)

76. (New) The method of fabricating a semiconductor device in accordance with claim 71, further comprising a step of forming an insulating film of 1000 to 6000 Å in thickness on said substrate and forming said amorphous silicon film on said insulating film.

77. (New) The method of fabricating a semiconductor device in accordance with claim 71, wherein a xenon arc lamp is employed in said light source.

78. (New) The method of fabricating a semiconductor device in accordance with claim 71, wherein said rapidly heat treating step comprises a step of preparing said light source by arranging a pair of lamps vertically opposed to each other, and carrying said substrate so as to pass between said pair of lamps.

79. (New) The method of fabricating a semiconductor device in accordance with claim 71, wherein said rapid thermal annealing is performed a plurality of times.

80. (New) The method of fabricating a semiconductor device in accordance with claim 71, wherein the heating temperature is increased stepwise from an initial time to a final time.

81. (New) The method of fabricating a semiconductor device in accordance with claim 71, wherein said impurity region is rapidly heat treated for three seconds or less.